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REMARKS

The rejection of claims 1-4 and 8-14 under 35 U.S.C. § 112, second paragraph, has been obviated by revising the claims in accordance with the suggestions given by the Examiner in the last Office Action.

The rejection of the claims under 35 U.S.C. §§ 102 and 103 has further been obviated by revising independent claims 1, 5 and 15 to more clearly distinguish the invention from the prior art of record. However, before the specific language of the amendment is discussed, a brief recap of some of the principal features and advantages of the invention will be made so that the language used in the amendment may be more fully appreciated.

Generally speaking, the invention is a webbing retractor of the type capable in operating in either an ALR (automatic locking retractor) mode or a ELR (emergency locking retractor) mode having a mechanism for preventing the webbing from locking up within the retractor when the entire amount of webbing is taken-up or retracted within the retractor. In the past, such "end lock" occurred as a result of the action of the inertia plate which forms a part of the ALR. Specifically, when the webbing was completely retracted within the retractor, the sudden stop caused the inertial plate to move relative to the spool of the retractor, thereby triggering a pawl mechanism which prevented the spool of the retractor from being rotated in the webbing pull-out direction.

The present invention solves the aforementioned problem by means of a holding device which cancels both the ELR and ALR locking mechanisms when the webbing is completely retracted within the retractor. Advantageously, the holding device is formed from part of the switching mechanism that switches the operation of the retractor from an ALR mode to an ELR mode, as is described in detail in the paragraph bridging pages 27 and 28. Specifically, the operation of the pawl 138 of the holding device is controlled by the rotational movement of the first cam plate 104 that rotates with respect to the take-up shaft of the retractor, as described below:

"... the first cam plate 104 rotates in the webbing pull-out rotation direction, and near to the state in which the entire mount of the webbing 18 is taken out, the inclined wall provided at the large diameter portion 108B of the first cam

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plate abuts the pin [connected to pawl 138], and forcibly pushes the pin in the direction opposite to the direction of the arrow G against the urging force of the urging device.”

This is again described in even greater detail in the paragraph bridging pages 35 and 36. The use of the cam plate 104 of the ELR to ALR switching mechanism to form part of the holding device advantageously reduces the number of parts necessary to implement the function of the holding device of the invention.

Claim 1 has been amended to more specifically recite the advantageous use of a component of the ALR to ELR switching mechanism to form a component of the holding device. Specifically, claim 1 now recites a webbing retractor that includes a “switching mechanism for switching operation of said retractor from ALR mode to a ELR mode ...”, and a holding device which, when a vehicle occupant cancels an applied state of the webbing and an entire amount of the webbing is taken-up onto the take-up shaft by an urging force, holds the engagement teeth in a rotatable state, and which, at other times, holds the engagement teeth in a state in which rotation of the engagement teeth and the webbing-pullout direction is impeded, “wherein said switching mechanism forms part of said holding device.”

None of the references cited by the Examiner either discloses or suggests the webbing retractor recited in amended claim 1. While the Butenope ‘248 patent discloses a safety belt reeling device having a control disk 40 which is operated both by a safety belt-sensitive and a vehicle-sensitive locking system, as well as an engaging tip 21 of an arm 20 which releases the outer toothing 17 and the bearing cup 13 when the sensing arm 22 engages against safety belt coil 12, the Butenope ‘248 patent neither discloses nor suggests the specifically recited “switching mechanism for switching operation of said retractor from an ALR mode to an ELR mode, ...”, much less such a switching mechanism that “forms part of said holding device.” Accordingly, amended claim 1 is clearly patentable over the Butenope ‘248 patent.

The Sumiyashiki EP ‘266 patent is even less pertinent to the invention defined in amended claim 1 than the previously discussed Butenope ‘248 patent. All this patent discloses is a webbing retractor capable of operating in either a ALR or an ELR mode, without any disclosure or suggestion whatever of the specifically recited holding device which, when “an entire amount of the webbing is taken-up into the take-up shaft by an urging

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force, holds the engagement teeth in a rotatable state, ..." For this reason alone, amended claim 1 is clearly patentable over this reference.

Nor is amended claim 1 anticipated by the Frost '336 patent, which was cited by the Examiner only for its teaching in column 1, lines 11-15 of a seatbelt retractor having a sensor for sensing either the amount of belt wound on the reel or the number of rotations which the reel has made in order to hold a pawl out of engagement with a ratchet until a certain length of belt has been extended.

Finally, claim 1 is patentable over any tenable combination of the aforementioned references. Any combination of the Butenope '248 patent with either the Sumiyashiki EP '266 or Frost '336 patents would not begin to equate to the claimed invention, as such a combined device would comprise, at best, a pawl having a sensing arm engageable with the wound up safety belt coil of a retractor which was completely separate and mechanically independent from an ALR to ELR switching mechanisms. For all of these reasons, amended claim 1 is clearly patentable over any tenable combination of the references of record.

Claim 2 is patentable not only by reason of its dependency upon claim 1, but for its specific recitation that the pawl of the holding device is controllable by a cam mechanism "that forms part of said switching mechanism."

Claims 3 and 4 are each patentable at least by reason of their ultimate dependency upon amended claim 1.

Claim 5 includes all the limitations of both amended claims 1 and 2. Accordingly, all of the arguments submitted on behalf of the patentability of claim 2 apply with even greater force to claim 5, as claim 5 recites other components of the invention in even more specific terms than claim 1.

Claims 6, 7, 8, 9, 10, 11, 12, 13 and 14 are each patentable at least by reason of their ultimate dependence upon amended claim 5.

New, claim 15 has been amended, in method terminology, to include the same limitations added to amended claim 1. Accordingly, claim 15 is patentable for all the reasons given with respect to claim 1.

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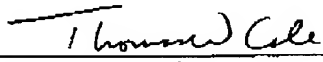
As the balance of the claims 16, 17 and 18 are each ultimately dependent upon amended claim 15, these claims are patentable as well.

Finally, new claims 19-33 have been added which are patentable not only for their dependency on claims 1, 5 and 15, but for their recitation of other features neither disclosed nor suggested by the references of record.

Now that all the claims are believed to be patentable, the prompt issuance of a notice of allowance and issue fee due is hereby earnestly solicited.

Respectfully submitted,

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